Picture of the Week: Better climate models? Just add ice.

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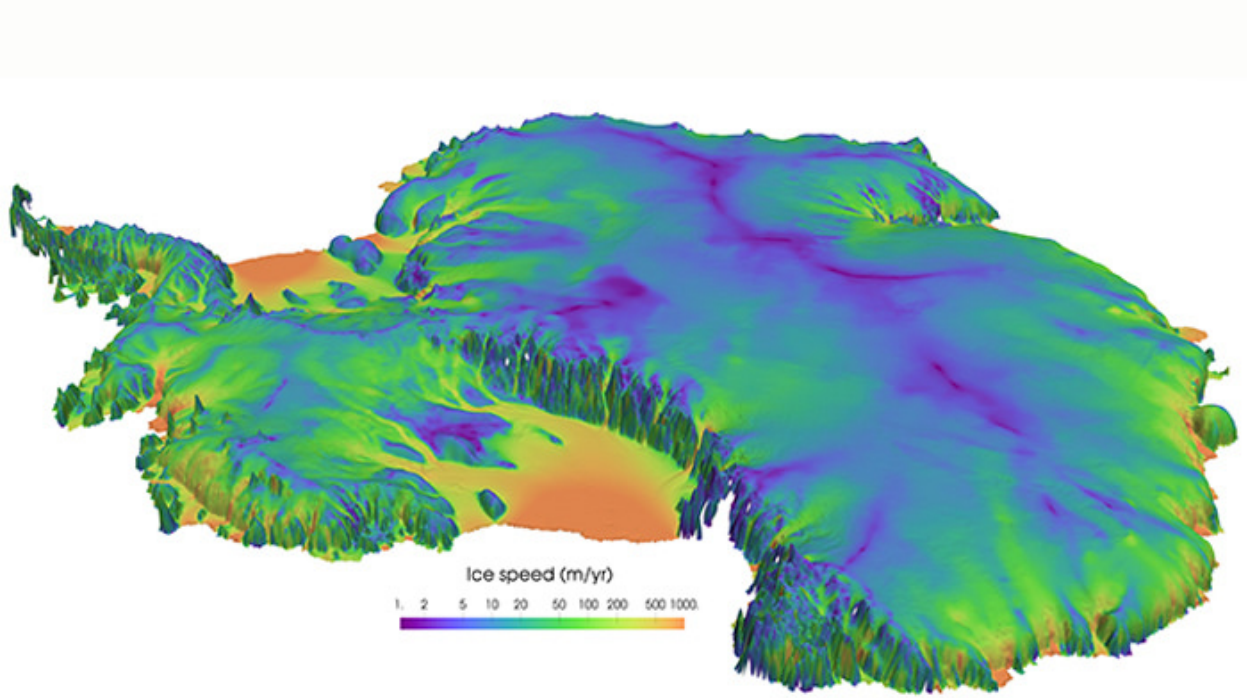

Better Climate Models? Just Add Ice

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The global climate is a complex system, so it's no surprise that improving the predictions made by climate models requires some serious computing power. *Supercomputing* power, in fact. With the help of high-performance computers, Los Alamos National Laboratory scientists are modeling ice sheets to predict sea level rise and coupling ice sheet models to climate models to sharpen their predictive capabilities.

This image shows the simulated speed of the Antarctic Ice Sheet across the continent using the Model for Prediction Across Scales—Land Ice. Slow-moving ice (blue and green) from the interior of the ice sheet feeds fast-moving (yellow and orange) ice streams and ice shelves that ring the margins of Antarctica. These marginal

regions restrain the vast body of ice behind them but are susceptible to speedup and destabilization through melting caused by the ocean below and atmosphere above.

This simulation was produced by Matthew Hoffman and Stephen Price from the Laboratory's Fluid Dynamics and Solid Mechanics group (T-3).